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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/134,771	08/12/98	SAH	D 860098.425

HM12/0424

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EXAMINER	
KAUSHAL,S	
ART UNIT	**PAPER NUMBER**
1633	19

DATE MAILED: 04/24/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Advisory Action	Application N .	Applicant(s)	
	09/134,771	SAH ET AL.	
	Examiner	Art Unit	
	Sumesh Kaushal Ph.D.	1633	

--The MAILING DATE f this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 02 March 2001 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check only a) or b)]

a) ☐ The period for reply expires _____months from the mailing date of the final rejection.

b) ☐ In view of the early submission of the proposed reply (within two months as set forth in MPEP § 706.07 (f)), the period for reply expires on the mailing date of this Advisory Action, OR continues to run from the mailing date of the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1.☒ A Notice of Appeal was filed on *26 March 2001*. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37CFR 1.191(d)), to avoid dismissal of the appeal.

2.☐ The proposed amendment(s) will be entered upon the timely submission of a Notice of Appeal and Appeal Brief with requisite fees.

3.☒ The proposed amendment(s) will not be entered because:

(a) ☒ they raise new issues that would require further consideration and/or search. (see NOTE below);

(b) ☐ they raise the issue of new matter. (see Note below);

(c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or

(d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: *See Continuation Sheet*.

4.☐ Applicant's reply has overcome the following rejection(s): _____.

5.☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

6.☒ The a)☐ affidavit, b)☐ exhibit, or c)☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: *See Continuation Sheet*.

7.☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.

8.☒ For purposes of Appeal, the status of the claim(s) is as follows (see attached written explanation, if any):

Claim(s) allowed: *none*.

Claim(s) objected to: *none*.

Claim(s) rejected: *1-15,23 and 24*.

Claim(s) withdrawn from consideration: _____.

9. ☐ The proposed drawing correction filed on _____ a)☐has b)☐ has not been approved by the Examiner.

10.☐ Note the attached Information Disclosure Statement(s)(PTO-1449) Paper No(s). _____.

11.☒ Other: *IDS filed on 03/13/01 is NOT considred: See Continuation Sheet*

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Continuation of 3. NOTE: The proposed amendment of claim 1 would require further consideration and/or search regarding prior art issues under 35 USC 102 and 103.

Continuation of 11. Other: The information disclosure statement filed 03/13/01 fails to comply with 37 CFR 1.97(c) because it lacks a statement as specified in 37 CFR 1.97(e). It has been placed in the application file, but the information referred to therein has not been considered.

Continuation of 6. does NOT place the application in condition for allowance because:

Claims 1-15 and 23-24 stand rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Hosimaru et al (PNAS. 93:1518-1523, 1996) and Prasad et al (In Vitro. Cell Dev. 30A:596-603, 1994) in view of Boss et al (US 5411883, 1995) and Gallyas et al (Neurochem. Res. 22(5):569-575, 1997) for the same reasons of record as set forth in the official action mailed on 10/03/00.

The applicant argues that there is no suggestion or motivation to combine the cited references and there is no reasonable expectation of success. The applicant argues that a person skill in the art would not expect that the method of immortalizing rat neuronal progenitor as taught by Hosimaru et al would also work for human meseccephalic neuronal cell progenitors Furthermore, Hosimaru et al teaches the use of FGF where as the present invention uses EGF or PDF. The applicant further argues that Prasad et al does not suggest that BSA, albumin, fibronectin and collagen would be necessary for the proliferation of mesencephalon progenitor cells. The applicant further argues that Boss et al does not teach progenitor cells that grow in to a monolayer culture. The applicant further argues that characterization of GABAergic and dopamine neurotransmitters as taught by Gallyas et al is not related to invention as claimed. The applicant concluded that combination of the cited references does not teach or suggest the immortalization of human mesencepalon neuronal progenitor cell lines that are capable of differentiation into GABaergic and dopaminergic cells.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

In this case, Hosimaru et al teaches the immortalized rat neuronal progenitor cells wherein the expression of v-myc oncogene is conditionally driven by a tetracycline-controlled trnsactivator and a human cytomegalovirus (CMV) promoter and the presence of several cytokine, or forskolin or growth factors that governs the differentiation of immortalized neuronal precursor cells. Gallyas et al teaches the characterization of mouse immortalized neuronal cell lines by measuring the concentration of various neurotransmitters, like GABAergic and dopamine. Furthermore, Boss et al clearly teaches the isolation and monolayer culture of human mesencephalon neuron progenitor cells (see abstract; col.5 line 40-67; col.6, line 33; col.9-10, table 1-3; col. 11-12 (preparation of monolayer culture), col.20 line 60).

Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to substitute the immortalized rat neuronal progenitor cells as taught by Hosimaru et al and Prasad et al with human mesencephalon neuron progenitors cells as taught by Boss et al. It would have been further obvious to characterize immortalized human mesencephalon cells as taught by Gallyas et al because dopamine and GABA are neurotransmitter of interest. One would have reasonable expectation of success because Boss et al teaching the specific culture conditions the human human mesencephalon neuron progenitor cells can be easily transduced by the retroviral vector as taught by Hosimaru et al. One would have been motivated to make immortalized human neuronal progenitor cells wherein the expression of v-myc oncogene is driven by tetracycline-controlled trnsactivator because the suppression of v-myc oncogene in an immortalized progenitor induces the differentiation of the neuronal progenitor cell. One would have been further motivated make immortalized human neuronal progenitor cells because the human neuronal cells would have been useful in the study of neurotransmitters and neuron cell differentiation. .